

## **SD 2.1 Physical Fighting by Youth**

Physical violence is a major cause of injury and *homicide* among adolescents.<sup>20</sup> In 1999, almost half of all male students and one-quarter of female students in grades 9 through 12 reported having been involved in a physical fight during the previous year. However, the percentage of all students who reported involvement in a fight decreased significantly between 1991 and 1999, from 43 percent to 36 percent. For males, the percentage decreased from 50 percent in 1991 to 44 percent in 1999 (see Figure SD 2.1).

**Differences by Age.** For all the years included in Table SD 2.1, the percentage of students who reported being involved in fights decreased with age. In 1997, 45 percent of 9th-grade students and 29 percent of 12th-grade students reported being involved in a fight. It is unclear, however, whether this pattern reflects the effects of increasing maturity, a change in the propensity to report having been in a fight, or a tendency for violence-prone youth to drop out of school, leaving a less violent pool of students in the higher grades.

**Differences by Race and Hispanic Origin.**<sup>21</sup> In 1999, 33 percent of White, non-Hispanic students reported involvement in a physical fight within the past year, compared with 41 percent of Black, non-Hispanic students and 40 percent of Hispanic students (see Table SD 2.1).

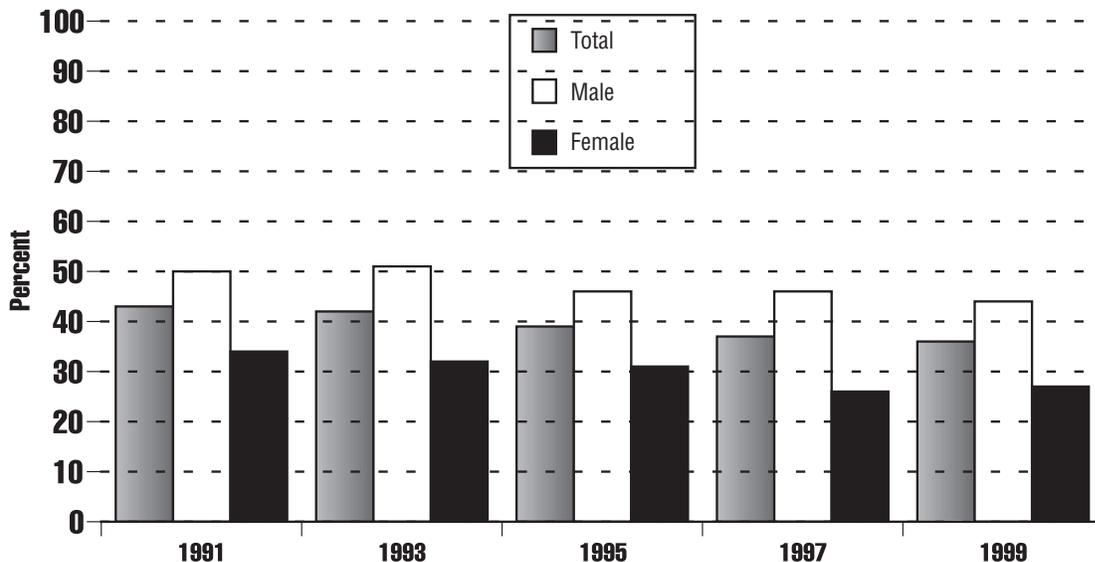
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<sup>20</sup> Kann et al. 1998. Youth Risk Behavior Surveillance—United States, 1997. In CDC Surveillance Summaries, *Morbidity and Mortality Weekly Report*, 47(SS-3).

<sup>21</sup> Persons of Hispanic origin may be of any race.

Figure SD 2.1

Percentage of students in grades 9 through 12 in the United States reporting that they have been in a physical fight within the past year, by gender: Selected years, 1991-1999



Sources: Unpublished tabulations of the Youth Risk Behavior Surveillance System (YRBSS) provided by the Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control, Kann et al., 1995, (Table 6); Kann et al., 1996, (Table 6); Kann et al., 1998, (Table 6); Centers for Disease Control and Prevention, 2000. Youth Risk Behavior Surveillance —United States 1999 in *Morbidity and Mortality Weekly Report* 49(SS05); 1-96.

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**Table SD 2.1**

Percentage of students in grades 9 through 12 in the United States reporting that they have been in a physical fight<sup>a</sup> within the past year, by gender, grade, and race and Hispanic origin: Selected years, 1991-1999

	1991			1993			1995			1997			1999		
	Total	Male	Female												
<b>Total</b>	43	50	34	42	51	32	39	46	31	37	46	26	36	44	27
<b>Grade</b>															
Ninth	51	58	43	50	59	41	47	55	37	45	56	32	41	50	33
Tenth	43	50	35	42	52	32	40	46	34	40	48	30	38	46	29
Eleventh	43	51	35	41	52	28	37	46	28	34	44	23	31	39	23
Twelfth	34	42	25	35	43	27	31	38	24	29	37	19	30	39	22
<b>Race and Hispanic origin<sup>b</sup></b>															
White, non-Hispanic	41	49	32	40	50	30	36	44	27	34	43	21	33	43	22
Black, non-Hispanic	51	58	44	50	58	42	42	49	35	43	49	38	41	44	39
Hispanic	41	49	35	43	52	34	48	56	40	41	50	30	40	51	30

Sources: Unpublished tabulations of the Youth Risk Behavior Surveillance System (YRBSS) provided by the Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. Kann et al., 1991, 1993, 1995, 1997, 1999, (Table 6).



## **SD 2.2 Weapon Carrying Among High School Youth**

*Weapon* carrying is associated with the most serious injuries resulting from violence. Carrying a weapon significantly increases the risk that a violent argument will result in death, disability, or other serious injury.<sup>22</sup>

Since 1991, the percentage of students who report carrying a weapon such as a gun, knife, or club at least once in the past month has declined; for example, in 1999, 17 percent of students in grades 9 through 12 reported carrying a weapon, compared with 26 percent in 1991 (see Table SD 2.2A).

The number of students who reported carrying a gun at some time in the past 30 days declined significantly between 1993 and 1999. In 1999, 5 percent of high school students reported having carried a gun, including 12 percent of Black, non-Hispanic students, 8 percent of Hispanic students, and 4 percent of White, non-Hispanic students (see Table SD 2.2.B).

**Differences by Age.** In general, students in the lower grades are more likely than students in the upper grades to carry a weapon. In 1999, 18 percent of 9th graders reported having carried a weapon in the past 30 days, compared with 16 percent of 12th graders.

**Differences by Gender.** High school males are much more likely than females to carry a weapon. This is true across all grades and for all racial and ethnic groups (see Figure SD 2.2.A); for example, in 1999, 29 percent of males in grades 9 through 12 reported carrying a weapon, compared with 7 percent of females.

**Differences by Race and Hispanic Origin.**<sup>23</sup> In 1999, 16 percent of White, non-Hispanic, 17 percent of Black, non-Hispanic, and 19 percent of Hispanic students reported having carried a weapon. For White, non-Hispanic and Black, non-Hispanic students, these represent reductions from 1991 rates of 25 and 33 percent, respectively.

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<sup>22</sup> Public Health Service. 1993. Measuring the Health Behavior of Adolescents: The Youth Risk Behavior Surveillance System and Recent Public Health Reports on High-Risk Adolescents. *Public Health Reports*, 108(Supp. 1). Rockville, MD.

<sup>23</sup> Persons of Hispanic origin may be of any race.

**SOCIAL DEVELOPMENT AND BEHAVIORAL HEALTH**

**Table SD 2.2.A**

Percentage of students in grades 9 through 12 in the United States who reported having carried a weapon<sup>a</sup> at least once within the past 30 days, by gender, grade, and race and Hispanic origin: Selected years, 1991-1999

	1991			1993			1995			1997			1999		
	Total	Male	Female												
<b>Total</b>	26	41	11	22	34	9	20	31	8	18	28	7	17	29	6
<b>Grade</b>															
Ninth	28	44	10	26	39	11	23	34	9	23	33	11	18	29	7
Tenth	27	42	11	21	33	10	21	32	9	17	27	6	19	31	5
Eleventh	29	44	13	22	33	9	20	32	8	18	29	6	16	27	5
Twelfth	21	33	10	20	33	7	16	26	6	15	23	5	16	27	5
<b>Race and Hispanic origin<sup>b</sup></b>															
White, non-Hispanic	25	41	8	21	33	7	19	31	6	17	27	4	16	29	4
Black, non-Hispanic	33	43	24	29	38	19	22	30	16	22	29	15	17	23	12
Hispanic	26	40	13	24	37	12	25	37	13	23	35	10	19	30	8

<sup>a</sup> Students were asked whether they carried a weapon “such as a gun, knife, or club” on at least one of the 30 days preceding the survey.

Sources: Centers for Disease Control and Prevention. 1990-1991 Youth Risk Behavior Surveillance (YRBS), (Table 2); Kann et al., 44 (SS-1), 45 (SS-4), 47 (SS-3), (Table 4 in each). Centers for Disease Control and Prevention, 2000. *Youth*.

**Table SD 2.2.B**

Percentage of students in grades 9 through 12 in the United States who reported having carried a gun at least once within the past 30 days, by gender, grade, and race and Hispanic origin: Selected years, 1993-1999

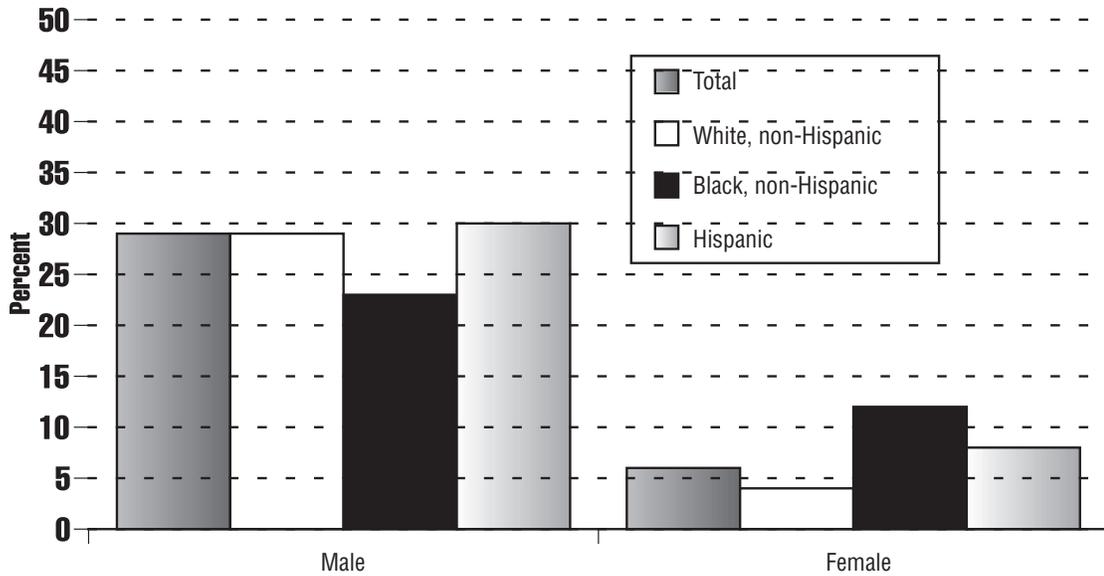
	1993			1995			1997			1999		
	Total	Male	Female									
<b>Total</b>	8	14	2	8	12	3	6	10	2	5	9	1
<b>Grade</b>												
Ninth	9	16	2	9	14	3	8	13	3	5	10	1
Tenth	9	15	2	8	13	3	6	10	1	5	10	1
Eleventh	7	13	1	7	12	1	6	9	1	4	7	1
Twelfth	7	12	1	6	11	2	5	8	1	5	8	1
<b>Race and Hispanic origin<sup>a</sup></b>												
White, non-Hispanic	7	12	1	6	10	2	4	7	1	4	8	1

Source: Kann et al., 1995, 44 (SS-1), (Table 4); Kann et al., 1996 45 (SS-4), (Table 4); Kann et al., 1998, 47 (SS-3), (Table 4). Centers for Disease Control and Prevention, 2000. *Youth*.

**Behavioral Health: Physical Health and Safety**

**Figure SD 2.2.A**

Percentage of students in grades 9 through 12 in the United States who reported having carried a weapon<sup>a</sup> at least once within the past 30 days, by gender and by race<sup>b</sup> and Hispanic origin: 1999



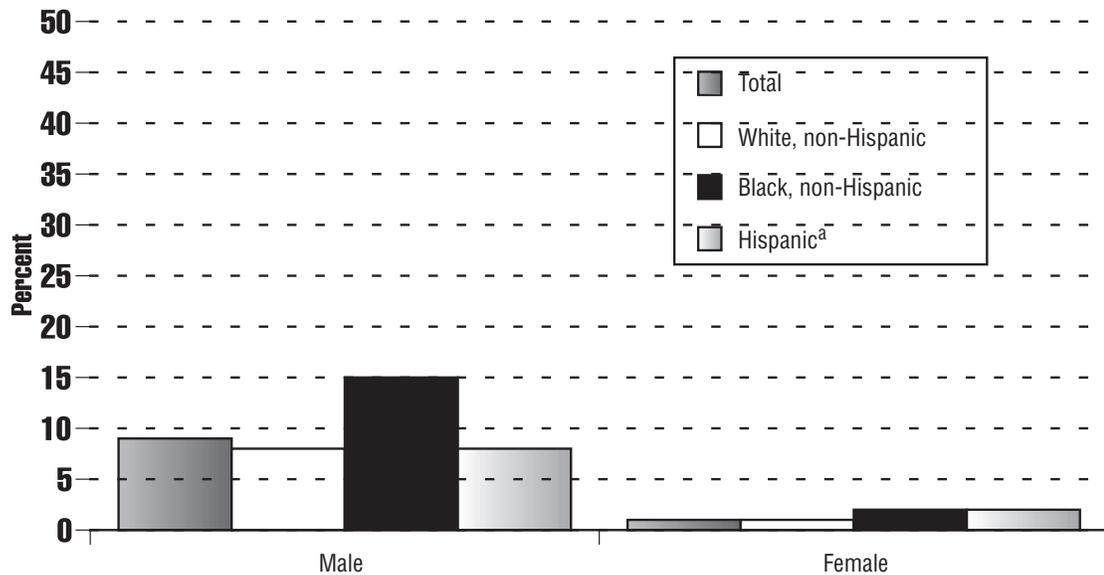
<sup>a</sup> Students were asked whether they carried a weapon “such as a gun, knife, or club” on at least one of the 30 days preceding the survey.

<sup>b</sup> Persons of Hispanic origin may be of any race.

Source: Centers for Disease Control and Prevention, 2000. *Youth*.

**Figure SD 2.2.B**

Percentage of students in grades 9 through 12 in the United States who reported having carried a gun at least once within the past 30 days, by gender and by race and Hispanic origin<sup>a</sup>: 1999



<sup>a</sup> Persons of Hispanic origin may be of any race.

Source: Centers for Disease Control and Prevention, 2000. *Youth*.



## **SD 2.3 Seat Belt Use**

Motor vehicle crashes are the leading causes of death for children from 6 to 14 years old.<sup>24</sup> In 1999, there were 550 passenger vehicle occupant fatalities among children under 5 years of age.<sup>25</sup> Of those 550 fatalities, an estimated 291 (53 percent) were totally unrestrained.<sup>26</sup> On average, 7 children ages 0-14 were killed and 872 were injured every day in motor vehicle crashes during 1999.<sup>27</sup> Studies show that consistent use of seat belts and child safety seats dramatically lessens the risk of injury or death in a motor vehicle crash. When used properly, safety belts reduce the risk of fatal injury to front seat occupants (age 5 years and older) of passenger cars by 45 percent and the risk of moderate to critical injury by 50 percent.

Table SD 2.3 presents data from the National Occupant Protection Use Survey (NOPUS), which gathers data through observation at intersections.<sup>28</sup> Between 1996 and 1998, seat belt use among toddlers ages 1 to 4 increased dramatically from 60 percent to 91 percent. Use among infants under 1 year old increased from 85 percent to 97 percent during the same time period. While these are promising trends, recent research indicates as many as 85 percent of parents and caregivers who do use car seats continue to install and use car seats incorrectly.<sup>29</sup>

Between 1996 and 1998 rates of seat belt use increased modestly for persons ages 5 to 15 and 16 to 24, from 65 to 69 percent and 50 to 55 percent, respectively.

**Differences by Age.** The use of child safety seats or seat belts is substantially higher at younger ages. In 1998, rates were 97 percent for infants, 87 percent for children ages 1 to 4, 69 percent for children ages 5 to 15, and 55 percent for ages 16 to 24 (see Figure SD 2.3). The results of the 1999 Youth Risk Behavior Survey showed the decline of seat belt use among high school students. Seventeen percent of ninth graders, 15 percent of tenth graders, 14 percent of eleventh graders and 19 percent of twelfth graders rarely or never wore seatbelts.<sup>30</sup>

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<sup>24</sup> Murphy, S.L. 2000. Deaths: Final Data for 1998. *National Vital Statistics Reports*, 48(11). Hyattsville, MD: National Center for Health Statistics. Based on 1997 figures, which are the latest mortality data currently available from the National Center for Health Statistics.

<sup>25</sup> National Highway Traffic Safety Administration, 2000. *Traffic Safety Facts 1999*. DOT HS809087. Washington, DC: U.S. Department of Transportation.

<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

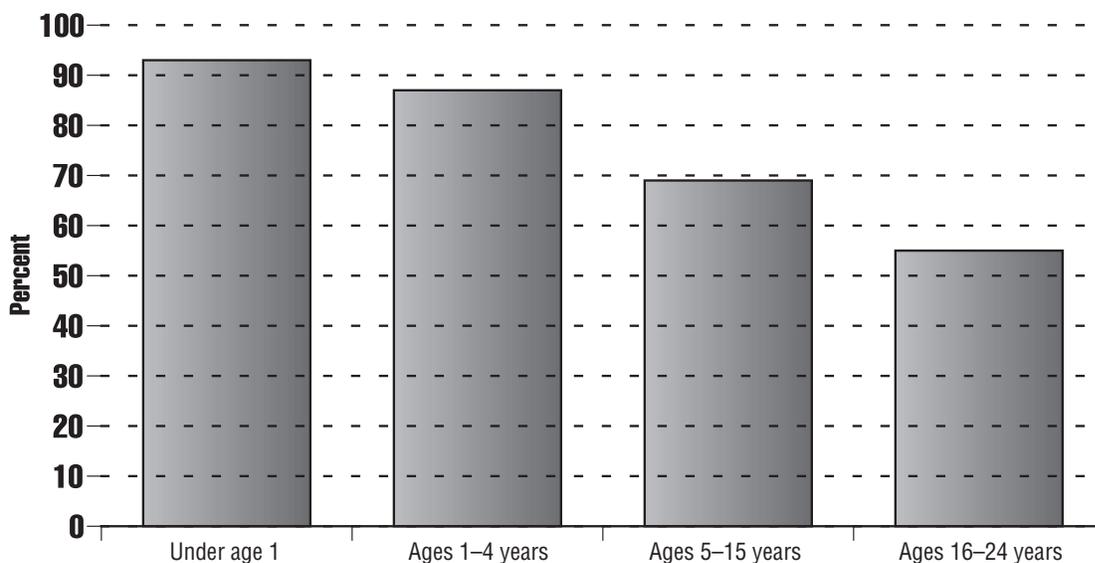
<sup>28</sup> Previous editions of *Trends in the Well-Being of America's Children and Youth* presented seat belt data based on parent report rather than observation. Estimates based on parent report are higher than those based on observation.

<sup>29</sup> The study identified several frequent misuses of rear-facing, forward facing, and booster seats for observed children, including 63 percent in seats not held tightly by safety belts, 33 percent with loose harness straps, and 20 percent with harness straps incorrectly routed through the seats. Taft, C.H., Mickalide, A.D., and Taft, A.R. 1999 February. *Child Passengers at Risk in America: A National Study of Car Seat Misuse*. Washington, DC: National SAFEKIDS Campaign.

<sup>30</sup> Centers for Disease Control and Prevention. 2000. Youth Risk Behavior Surveillance. United States, 1999. *Morbidity and Mortality Weekly Report*, 49(SS-5).

**Figure SD 2.3**

Percentage of children and youth in the United States who are observed to have worn a seat belt or been placed in a child safety seat, by age:<sup>a</sup> 1998



<sup>a</sup> Age group is based on the best judgment of the observers in the National Occupant Protection Use Survey (NOPUS) Controlled Intersection Study.

Source: Transportation Secretary Slater Hails Increased Seat Belt Use, NHTSA 21-99, May 24, 1999. 1994 and 1996 estimates from National Occupant Protection Use Survey—1996: Controlled Intersection Study. Research Note. National Highway Traffic Safety Administration, U.S. Department of Transportation, August 1997.

**Table SD 2.3**

Percentage of children and youth in the United States who are observed to have worn a seat belt or been placed in a child safety seat, by age:<sup>a</sup> Selected years, 1994-1998

	1994	1996	1998
Infants (under age 1) <sup>b</sup>	88	85	97
Toddlers (1-4 years) <sup>c</sup>	61	60	91
Youths (5-15 years)	58	65	69
Young adults (16-24 years)	53	50	55

<sup>a</sup> Age group is based on the best judgment of the observers in the National Occupant Protection Use Survey (NOPUS) Controlled Intersection Study.

<sup>b</sup> Use of restraints for infants refers to child safety seats.

<sup>c</sup> Use of restraints for toddlers refers to safety belts or child safety seats.

Source: 1998 Estimates from U.S. Department of Transportation, National Highway Traffic Safety Administration, 1999, Seat Belt Use; 1994 and 1996 estimates from National Occupant Protection Use Survey—1996: Controlled Intersection Study. Research Note. National Highway Traffic Safety Administration, U.S. Department of Transportation, August 1997.

## **SD 2.4 Regular Physical Exercise**

Sixty percent of Americans do not exercise regularly, according to a 1996 report by the surgeon general, despite the many health benefits associated with physical activity.<sup>31</sup> People of all ages, both male and female, benefit from regular physical activity. Significant health benefits can be obtained by including a moderate amount of physical activity (e.g., 30 minutes of brisk walking or raking leaves, 15 minutes of running, or 45 minutes of playing volleyball) on most, if not all, days of the week.

The percentage of 12th-grade students who report actively participating in sports or exercise “almost every day” has remained fairly stable since 1976, varying between 44 and 48 percent. Rates have also been stable for 8th- and 10th-grade students since 1991, the first year in which data were collected for those grades (see Table SD 2.4.A).

**Differences by Age.** The percentages of students who report that they actively participate in sports or exercise “almost every day” decreased with age. In 1999, for example, 53 percent of 8th graders, 52 percent of 10th graders, and 45 percent of 12th graders reported daily or almost daily exercise (see Figure SD 2.4). A similar pattern emerged in a survey that asked teens whether they had exercised vigorously three or more times in the past week (see Table SD 2.4.B).

**Differences by Gender.** Males consistently report exercising or participating in sports more often than females. In 1999, for each age group, male rates were 14 to 17 percentage points higher than female rates, a trend that exists for nearly every year that data are available (see Table SD 2.4.A).

**Differences by Race and Hispanic Origin.**<sup>32</sup> Black and White students in the 8th grade are about equally likely to exercise regularly (see Table SD 2.4.A). Among 10th- and 12th-grade students, Blacks appeared to be less likely than Whites to exercise regularly in 1999. Other survey data, reported in Table SD 2.4.B, show larger differences by race and Hispanic origin. In 1999, 67 percent of White teens reported exercising vigorously at least three times a week, compared with 56 percent of non-Hispanic Black teens and 61 percent of Hispanic teens.

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<sup>31</sup> U.S. Department of Health and Human Services. 1996. *Physical Activity and Health: A Report of the Surgeon General*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion.

<sup>32</sup> Estimates for Whites and Blacks include Hispanics of those races in Table SD 2.4.A, but do not include Hispanics when referring to Table SD 2.4.B. Persons of Hispanic origin may be of any race.

**SOCIAL DEVELOPMENT AND BEHAVIORAL HEALTH**

**Table SD 2.4.A**

**Percentage of 8th-, 10th-, and 12th-grade students in the United States who report that they actively participate in sports or exercise "almost every day," by gender and race<sup>a</sup>: Selected years, 1976-1999**

	1976	1981	1986	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>8th Grade</b>												
Total	—	—	—	57	55	55	53	56	54	55	53	53
Gender												
Male	—	—	—	65	65	65	63	66	63	63	61	60
Female	—	—	—	49	45	46	44	47	47	48	45	46
Race <sup>a</sup>												
White	—	—	—	58	56	58	56	59	57	58	56	55
Black	—	—	—	61	57	54	52	55	56	56	54	55
<b>10th Grade</b>												
Total	—	—	—	54	54	53	53	53	52	52	50	52
Gender												
Male	—	—	—	63	64	62	62	62	60	60	58	60
Female	—	—	—	45	45	45	44	45	44	45	42	44
Race <sup>a</sup>												
White	—	—	—	55	55	54	54	55	53	54	52	54
Black	—	—	—	54	52	56	50	52	53	52	47	47
<b>12th Grade</b>												
Total	44	48	44	46	46	44	45	45	45	45	44	45
Gender												
Male	52	56	54	55	59	55	56	55	58	56	53	54
Female	36	39	36	36	33	33	36	37	32	36	35	37
Race <sup>a</sup>												
White	43	47	46	48	48	46	49	46	48	46	46	48
Black	49	53	43	43	41	39	39	48	40	38	38	40

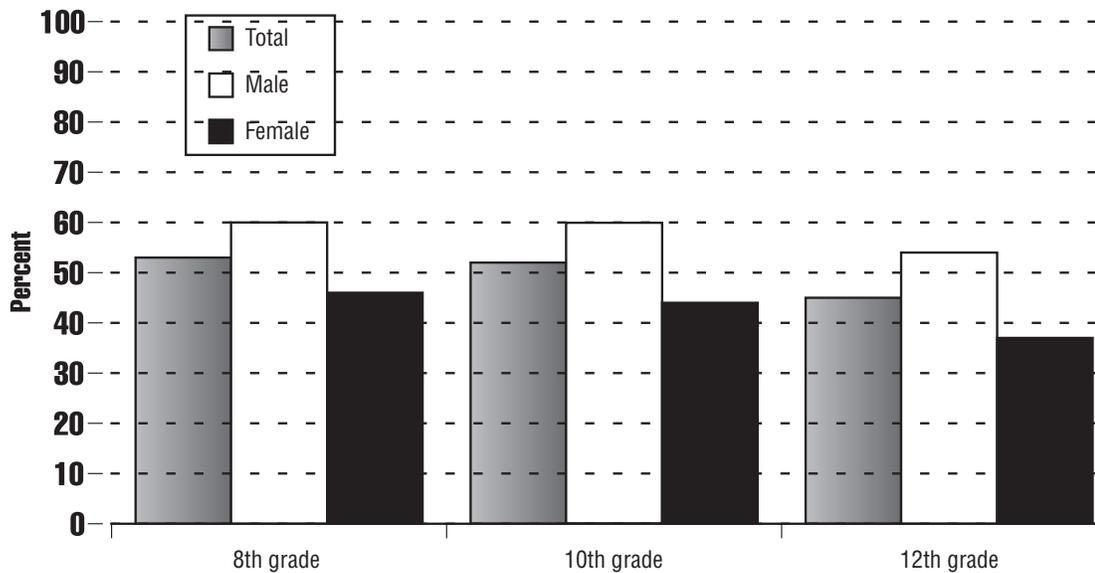
<sup>a</sup> Estimates for Whites and Blacks include Hispanics of those races. Persons of Hispanic origin may be of any race.

Sources: Bachman, Johnston, and O'Malley, 1976, 1981, 1986, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, and 1999 (prepublication tables). 8th and 10th grade 1991 Questionnaire Forms 1 and 2, (item A04E); 1992-1996 Questionnaire Forms 1 and 2, (item A03E); and 1997 Questionnaire Forms 1-6, (item A03E). 12th grade 1976, 1981, 1986, and 1991-1997 Questionnaire Form 2, (item A02H).

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**Figure SD 2.4**

Percentage of 8th-, 10th-, and 12th-grade students who report that they actively participate in sports or exercise "almost every day," by gender: 1999



Source: Bachman, Johnston, and O'Malley, 1999 (prepublication tables, items A03E and A02H).

**SOCIAL DEVELOPMENT AND BEHAVIORAL HEALTH**

**Table SD 2.4.B**

**Percentage of students in grades 9 through 12 in the United States who report having exercised vigorously three or more times in the past 7 days, by gender, grade, and race and Hispanic origin: Selected years, 1993-1999**

	1993			1995			1997			1999		
	Total	Male	Female									
<b>Total</b>	66	75	56	64	74	52	64	72	54	65	72	57
<b>Grade</b>												
Ninth	75	81	68	72	80	62	73	79	66	73	77	68
Tenth	70	77	61	69	79	59	66	74	56	65	73	56
Eleventh	63	71	53	60	72	47	60	69	49	58	67	49
Twelfth	58	70	45	55	67	42	58	68	44	61	71	52
<b>Race and Hispanic origin<sup>a</sup></b>												
White, non-Hispanic	68	76	59	67	76	57	67	73	58	67	75	60
Black, non-Hispanic	60	71	49	53	68	41	54	67	41	56	65	47
Hispanic	59	69	50	57	70	45	60	69	50	61	72	50

<sup>a</sup> Persons of Hispanic origin may be of any race.

Note: Vigorous physical exercise is defined as activities that cause sweating and hard breathing for at least 20 minutes.

Sources: Kann et al., 1995, (Table 24); Kann et al., 1996, (Table 36); Kann et al., 1998, (Table 36). Centers for Disease Control and Prevention, 2000. *Youth*.

## **SD 2.5 Sufficient Hours of Sleep**

Getting sufficient hours of sleep on a regular basis is important for optimum functioning throughout the day. Getting enough sleep is also linked to physical health. Individuals who are chronically sleep-deprived may be more susceptible to physical illness and more prone to accidents due to lack of concentration or inattention. Research indicates that sleep loss has a negative effect on motor performance, cognitive function, and mood.<sup>33</sup> For adolescents, not getting enough sleep may translate into lower performance in school or may affect socialization.

The number of hours that prove to be sufficient may differ between ages and individuals. A recent survey indicates that males ages 12 through 17 average 65.8 hours of sleep per week and females of the same age average 66.8 hours per week (approximately 9.5 hours of sleep a night for both sexes).<sup>34</sup> Analyses based on data from the 1995 National Longitudinal Study of Adolescent Health allow for an examination of youth perceptions of whether they obtain the sleep they need. In 1995, 74.1 percent of youth ages 12 through 17 reported that they got enough sleep (see Table SD 2.5).

**Differences by Gender.** Adolescent males are more likely to report getting enough sleep than their female peers. In 1995, 76.4 percent of males ages 12 through 17 reported getting enough sleep, compared with 71.8 percent of females, although on average females get 1 extra hour during the week than males.

**Differences by Age and Grade.** In 1995, approximately four out of every five (82.2 percent) youth ages 12 through 14 reported getting enough sleep, compared with 70.5 percent of youth ages 15 through 17. Similarly, in grades 7 and 8, 83.3 percent of students reported getting enough sleep, compared with 72.5 percent of students in grades 9 and 10 and 66.5 percent of students in grades 11 and 12.

**Differences by Family Type.** Lower percentages of adolescents who live with a single father reported getting enough sleep (65.6 percent), compared with adolescents in other living arrangements (see Table SD 2.5).

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<sup>33</sup> Pilcher, J., & Huffcut, A. 1996. Effects of Sleep Deprivation on Performance: A Meta-analysis. *Sleep*, 19(4):318-326.

<sup>34</sup> Results from the Americans' Use of Time Project, University of Maryland, as reported in Robinson, J.P., and Bianchi, S. 1997. The Children's Hours. *American Demographics*, 12.

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**Table SD 2.5**

Percentage of adolescents ages 12 through 17 in the United States who report that they get enough sleep, by gender, age, grade, race and Hispanic origin,<sup>a</sup> and family structure: 1995

	1995
<b>Total</b>	74.1
<b>Gender</b>	
Male	76.4
Female	71.8
<b>Age</b>	
12-14	82.2
15-17	70.5
<b>Grade</b>	
7-8	83.3
9-10	72.5
11-12	66.5
<b>Race and Hispanic Origin<sup>a</sup></b>	
White, non-Hispanic	75.3
Black, non-Hispanic	72.8
Hispanic	73.5
<b>Family Structure</b>	
Mother & Father	75.6
Mother & Spouse/Partner	76.2
Father & Spouse/Partner	76.5
Single Mother	72.0
Single Father	65.6

<sup>a</sup> Persons of Hispanic origin may be of any race.

Source: Unpublished tabulations from the National Longitudinal Study of Adolescent Health Wave 1, 1995.